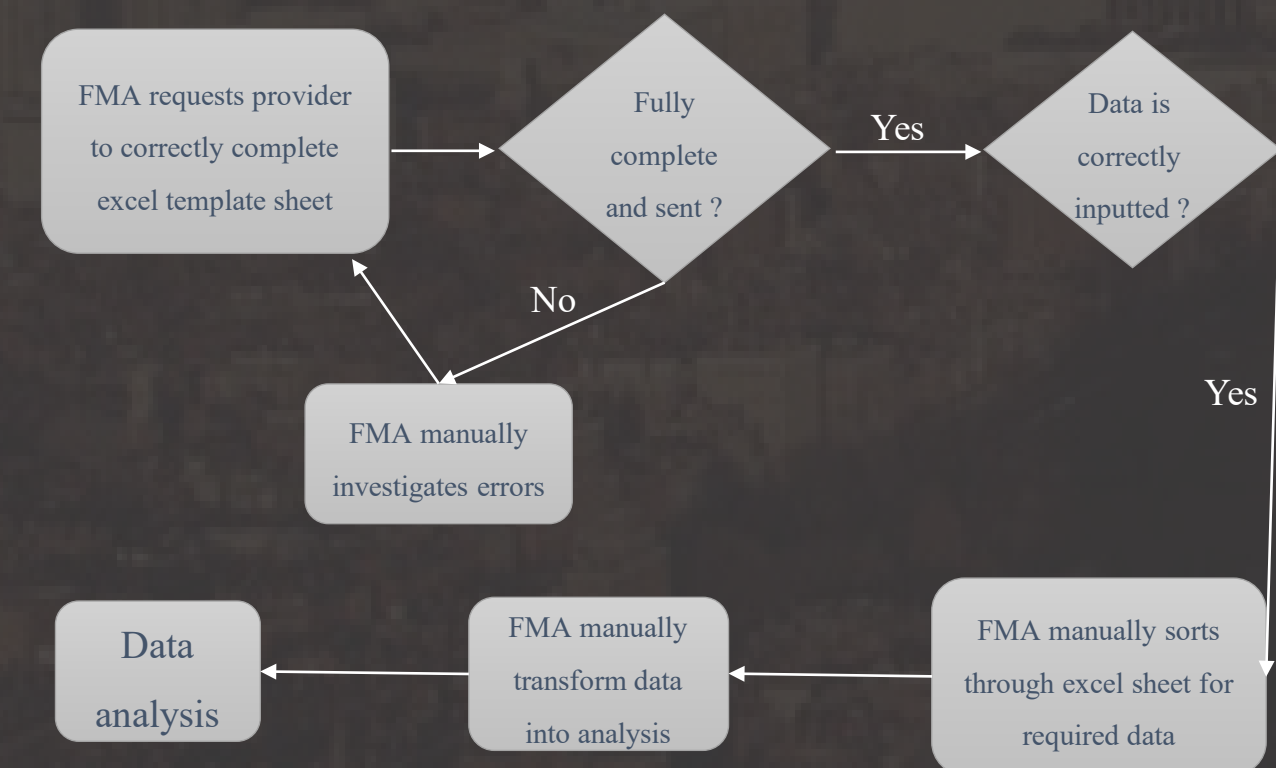


## Our Client...

**F.M.A** (financial markets authority ) is a government organization that takes responsibility for financial regulation in New Zealand markets. FMA aims to facilitate the development of the markets in a fair, efficient way. FMA is required to collect and process different types of disclosure forms from financial entities in a secure, fast and reliable manner.

## Rational...

FMA currently uses excel spreadsheets as a data collection system to obtain the information of the kiwi saver scheme from the financial providers they work with. The amount of information on the spreadsheets makes it difficult for the FMA analyzer and financial provider they work with to navigate and becomes overwhelming. This current system is time consuming and costly. The main issue is the amount of time having to collect the correct information from the financial providers without any confusion.



## Objectives...

- Research and analyze different solutions that can provide form management and automation
- Design the solution that best suits client's requirements (maximize time)
- Implement solution to current FMA database

### Design goals:

- Pick a platform
- Aggregate financial data
- Structured data format with minimal work on importation
- Limit errors
- Implementation with current FMA database
- Validation of data quality

## Quality assurance...

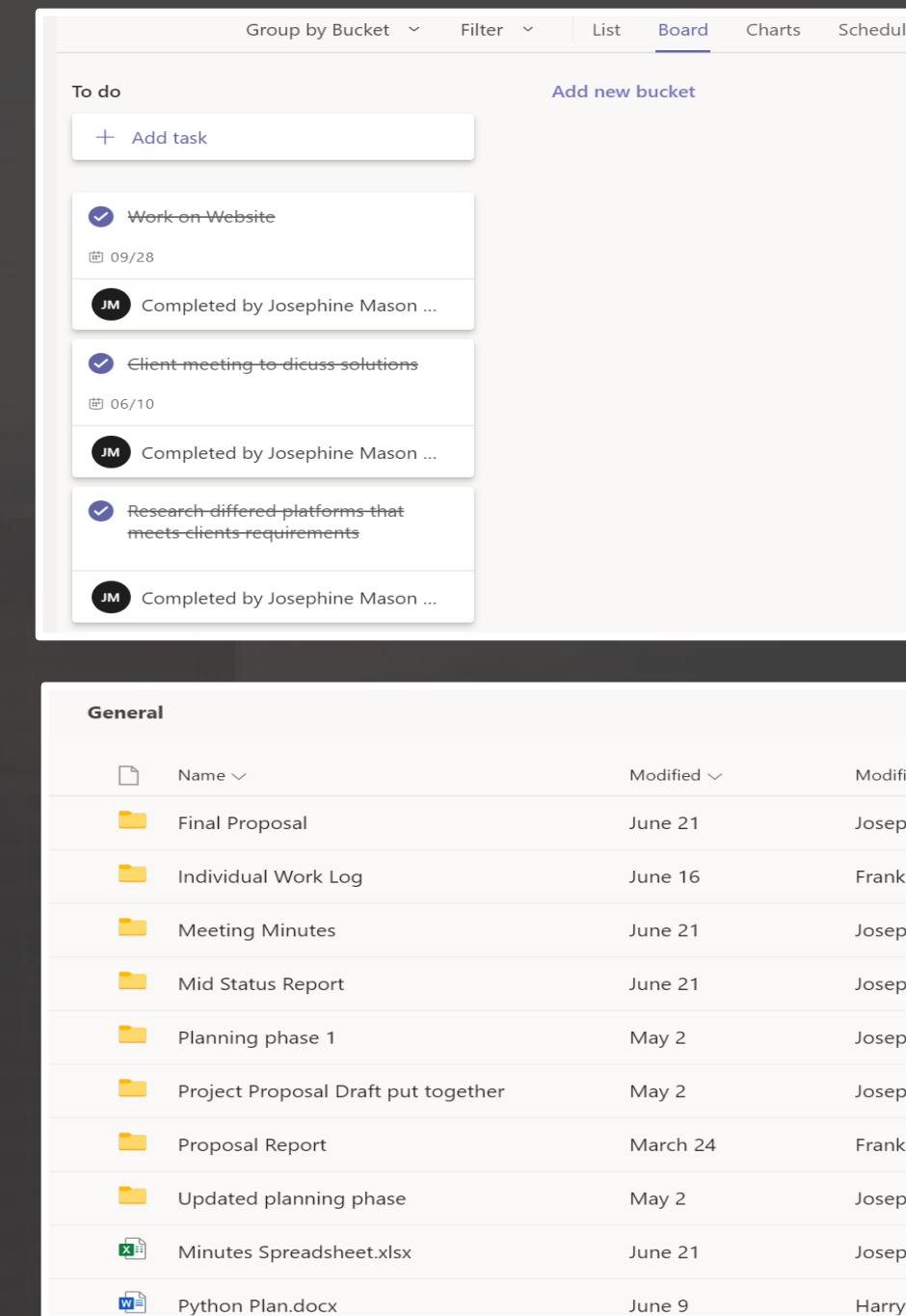
To assure the quality of each deliverable, each deliverable went through all stages of agile to ensure high quality content and that it met the standard for our client and the requirements of our course. Our team also took time to identify the skills we lacked to create a high standard project solution, and so upskilled in the areas we were weak in.

## Methodology...

The methodology that we used was the agile method. Agile development is a widely used development method to carry out research projects. Using Agile allowed our team to break up our project into the several sprints of agile which includes initiation, planning, executing, controlling and monitoring and closing.

To carry out agile development, our team used Microsoft Teams and Microsoft Teams planner. The planner enabled our team to:

- Set tasks
- Attach the deliverables
- Set a due date
- Set team member responsibilities
- Update completion status.



01.Contract  
05/02/20



03.Create  
26/06/20



02.idea  
10/06/20

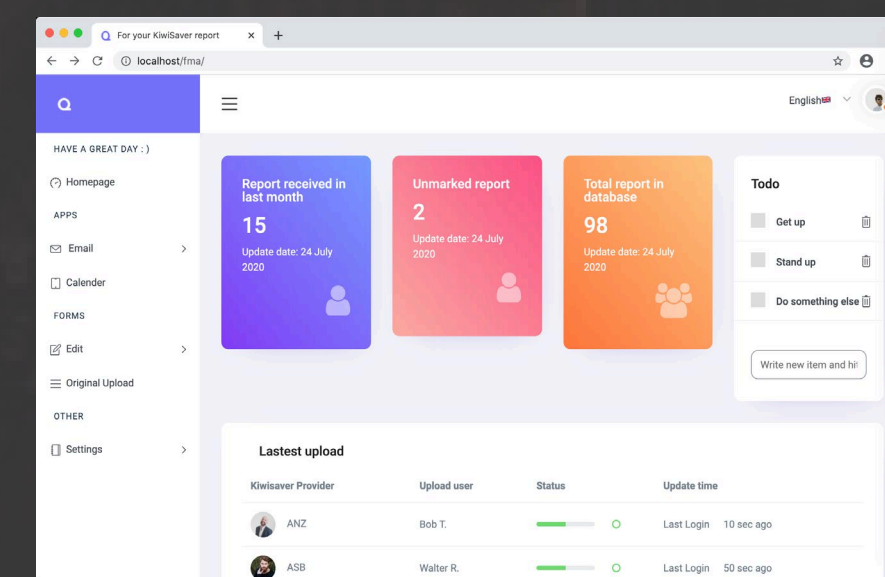
04.Finish/Implement  
23/09/20

05.Presentation  
27/10/20

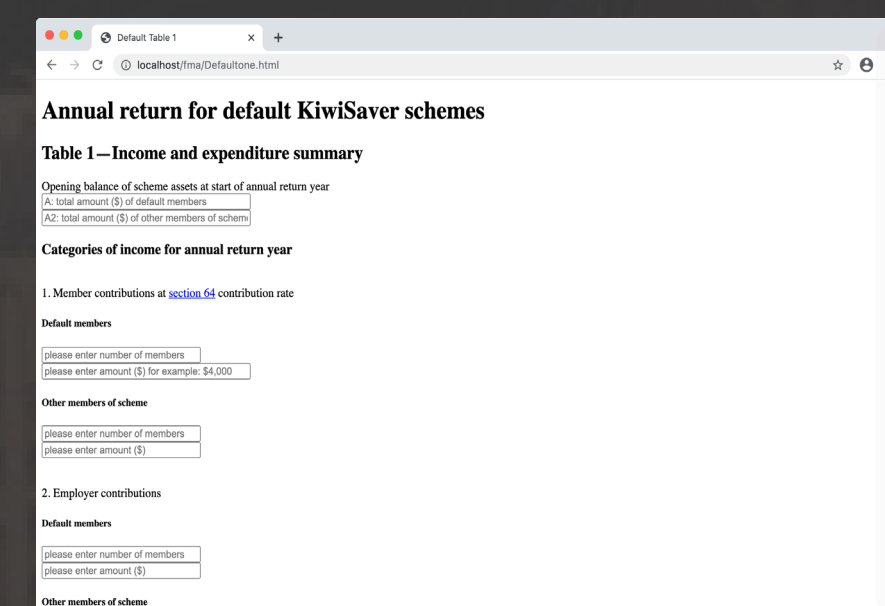


## Development...

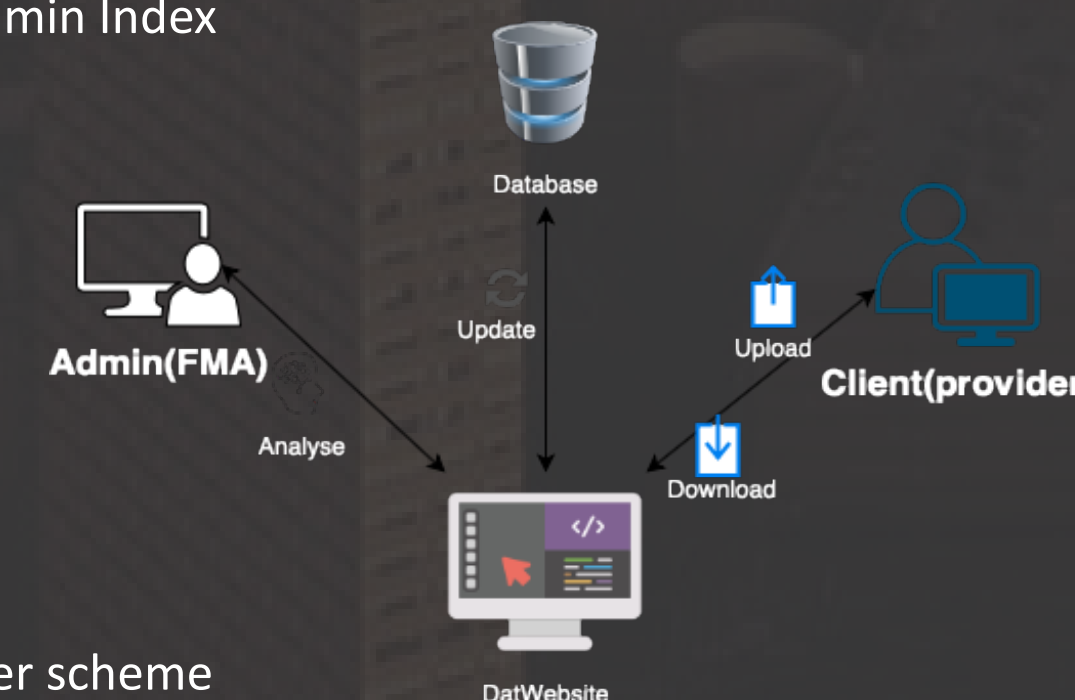
The combination of the database MYSQL with PHP was the platforms we used to develop the website. Firstly creating a login page for FMA admin and Kiwi Saver Provider with their own unique login code. FMA admin and Kiwi Saver Providers have a separate Index Page. The FMA admin page gives access to the providers completed and not completed form, whilst the Kiwi Saver Provider has access to the financial form. See below. The website eliminates time communicating between client and FMA whilst also limits errors as the form notifies the provider when an error occurs.



FMA Admin Index Page



Kiwi Saver scheme form



## Recommendations

Future development should focus on:

- Do unit tests.  
Given the team's very limited experience with website development, only acceptance tests have been carried out in this project at present. Unit testing would help the full version website work more functionally.
- Reconsider the naming of data  
Due to the large number of data, the same data in the different table might appear in the database twice or more, however, it might all need to be called in a function, therefore, data in the database could be named in other ways in future development.
- Enable email and calendar function by Microsoft  
Adding Microsoft outlook app into this website project may require permission from Microsoft. But adding this feature will make it much easier for FMA users to work on one site instead of switching back and forth between multiple sites.

## Challenges...

- **Disable text box**  
For the data that need to be calculated in the form, it will be calculated automatically and bring the results in the text box, however, client could make arbitrary changes in the text box which could affects the accuracy of the data. The solution that we hammer out is to set the text box to the disabled property which could not allowed use to change the data in the text box.
- **In person meeting affect**  
Affected by the lockdown, we are not allowed to hold meeting either with client or teammate in person, it is a tough situation for all of us to do this project online. Since we cannot change it, we had tried our best to do the communication through Microsoft teams.
- **Unfamiliarity**  
Unfamiliar with php, JavaScript and CSS coding.
- **Limited resources**  
Couldn't connect between the site and the database but was overcome with some research

## Reflection...

- **First experience on real project**  
It was the first time we work with a real client with a real problem needed to solve, we got a sense of the process for doing a real projec. Client's pain point is the problem what we need to address, when we are in the process of designing or implementing solutions, communication with client is still important to ensure that we are in the right track.
- **Problem solving**  
The most important step that we used to forget when solving a problem is to judge the problem. We should have more detailed understanding of the problems that we faced, such as why this problem occurs, why such problems need to be changed, what would change if this problem were solved. When we have a deep understanding of the problem, it is easier to find a solution

## Acknowledgements

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- Akbar Hossain
- Sonia Gul

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